

WHAT IS CLAIMED IS:

1. A washing machine, comprising:
 - an outer tub configured to store washing water;
 - an inner tub rotatably mounted in the outer tub;
 - a pulsator configured to form a water circulation for washing laundry; and
 - a motor installed under the outer tub and configured to rotate the inner tub and the pulsator, wherein the motor is configured to vary a rotation speed of the inner tub and the pulsator, such that the laundry is washed by a combination of modes as follows:
 - a centrifugal force washing mode, wherein the motor rotates the inner tub and the pulsator in the same direction for a first predetermined period of time, thereby creating a centrifugal force that is varied according to a variation of the rotation speed, which pushes the laundry against a wall of the inner tub; and
 - an agitation washing mode, wherein the motor rotates the inner tub and the pulsator in the same direction at an identical speed, and then rotates the inner tub and pulsator in a first direction for a second predetermined period of time and then in a second, reverse direction for the second predetermined period of time.
2. The washing machine according to claim 1, wherein in the centrifugal force washing mode, the motor rotates the inner tub at a first speed sufficient to force the washing water to flow from the outer tub back into the inner tub through a space provided between the inner tub and the outer tub.

3. The washing machine according to claim 1, wherein the centrifugal force washing mode further comprises a restoration washing mode wherein the motor rotates the inner tub in a first direction at a high speed, and then rotates the inner tub in a second direction or stops rotating the motor to separate the laundry from a wall of the inner tub.

4. The washing machine according to claim 1, wherein the centrifugal force washing mode further comprises a restoration washing mode wherein the motor rotates the inner tub at a high speed in the first direction and then in a second direction, alternately.

5. The washing machine according to claim 1, wherein the motor includes a stator and a rotor surrounding an outer circumference of the stator.

6. The washing machine according to claim 1, wherein the second predetermined period of time being shorter than the first predetermined period of time.

7. The washing machine according to claim 2, wherein the motor rotates the inner tub at a speed lower than the first speed in the agitation washing mode.